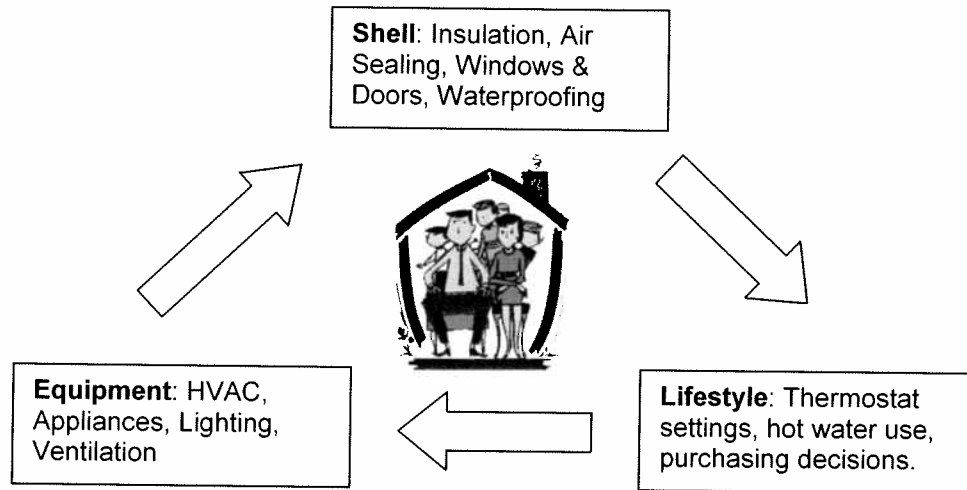


# Comprehensive Home Performance

Written Testimony to the Michigan House Energy and Technology Committee  
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As we plan an efficiency upgrade to homes and businesses, it is important to remember the critical factors in the energy use of any building. These three factors; the building shell, the equipment inside, and the lifestyle habits of the building occupants all play a critical role in the energy performance of the home or business. Even alternative energy considerations must include a comprehensive energy efficiency program.



Successful energy efficiency programs around the country have found that this “whole house” approach is the most effective at reducing gas and electrical energy demand. Most programs are met with success at the rate of \$1.20 savings for every \$1.00 invested. This effectiveness is tracked using Total Resource Cost Analysis. Such an approach has virtually no market saturation point (i.e. you can only change so many light bulbs and refrigerators before they’ve all been changed) and can be implemented with additional funding through many of the programs and organizations already in place around the state.

These successful programs have also realized that the best way to achieve such good results is to have an energy auditor conducting analysis on each project. There is simply no substitute for having a professional in the house. The additional non-monetary benefits of comprehensive analysis are an even greater benefit to the health, safety, and welfare of the building occupants by uncovering dangerous conditions such as carbon monoxide leakage and other hazards.

## *Critical factors to the success of such programs*

- **Sustainable Funding:** So many programs over the years have been created and funded with enthusiasm, met with mixed success, and folded from a lack of funding. A system of funding with a constant stream of income (monitored by accountability) is the key to meeting long term goals. No one wants to plan a career or business around a questionable income stream.
- **Accountability and Tracking:** Many of the programs in existence today are not required to track their effectiveness. A successful program would outline proper formulas and methods for tracking effectiveness. Those programs which fail to meet minimum requirements or fail to report results properly must be reprimanded and face the potential of losing funds.
- **Legislative Backing:** In order to add more “bite” to the “bark” of programs, legislators need to consider such things as tax incentives, building codes, utility regulation, and environmental emission statutes.



A good example program which Michigan may wish to emulate is the **Home Performance with Energy Star** program implemented by the New York State Energy Research and Development Authority (NYSERDA).

**Energy Star** is a collaborative agency formed by the EPA and DOE to reduce environmental impact through energy efficiency. Home Performance with Energy Star is a program which involves all elements of building performance in both new and existing structures. NYSERDA has built a very successful program and is willing to help others to get programs started.

- New structures are eligible for Energy Star Certification. Builders and homeowners are offered incentives to build and certify to these high efficiency standards.
- Existing homes are improved through a complete energy audit followed by improvements and post testing. Homeowners in New York are offered matching funds and 0% interest loans to pay for cost effective improvements. The 0% loans are unsecured loans by certain energy financing lenders who require that the improvements meet strict cost effectiveness standards. The interest for these loans ranges from 9% to 12% and is paid by NYSERDA resulting in zero interest for the homeowners. The matching fund grants are used for qualified low-income households. This approach works much better than the Low Income and Energy Efficiency program currently in place in Michigan.
- One critical factor to the success of NYSERDA programs is their ability to effectively market the incentives to new and existing homeowners. The best programs in the world would fail to meet their goals if they are not marketed correctly. Visiting their website shows how organized and committed they are to finding success in their efforts.
- For more information on NYSERDA, visit [www.nyserdera.org](http://www.nyserdera.org)
- For more information about Home Performance with Energy Star, visit [www.energystar.gov](http://www.energystar.gov)

## Summary

A comprehensive energy efficiency program, funded and managed as outlined in House Bill #4583, is one of the few chances we have to make a dramatic improvement to the state economy, create not only jobs but careers and companies, and protect our precious environment all at the same time.

**Bio:** Matt Rosendaul is an Energy Star Business Partner conducting Energy Star Certifications (HERS Ratings) and energy audits. He is also an adjunct faculty member at Lansing Community College in the Alternative Energy Engineering Technology program. He welcomes comments, and seeks opportunities to promote energy efficiency through action and education. He can be reached through his business website, [www.peaceful-existence.com](http://www.peaceful-existence.com) by email at [rosen9@lcc.edu](mailto:rosen9@lcc.edu), or by phone at 517-712-7665.